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Glockner 9 Chrysanthemum 4 Manual 4



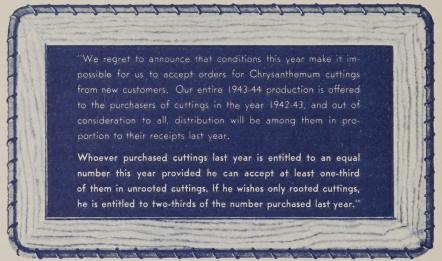
CHRYSANTHEMUM





War Time Facts about Chrysanthemum Cuttings

War conditions have forced a reduction in the propagation of Chrysanthemum cuttings. If you purchased Yoder Brothers cuttings in 1943, NO MATTER FROM WHOM, you are entitled to order a similar number from us with the following regulations set forth by Yoder Brothers.



To turther aid you in growing better Chrysanthemums we have included various cultural pointers. It is just a part of the *Sloechrer* service to keep you advised.

For important information on pot plant culture, shading and delayed flowering see pages 22 to 31.

SCHEDULE OF RATES

Fifty of a variety is the minimum that can be supplied; orders for more than 50 of a variety must be in multiples of 50.

The price per 100 and per 1000 for rooted cuttings appears opposite each variety in the catalogue. Unrooted cuttings will be available at \$10.00 per 1000 less than rooted cuttings.

If order totals 1000 or more, all items will take the 1000 rate. If order totals less than 1000, all items less than 250 will be billed at the 100 rate; 250 or more of a variety always take the 1000 rate.

Additions to orders or additional orders for the same customer will be considered a separate order and have no effect on the price of the original order.

Cultural Pointers

SOIL

Chrysanthemums will grow well in a wide range of soil types but a fibrous silt loam is preferred. Blue grass sod to which rotted manure has been added plus an application of super phosphate has given excellent results. A soil that does not remain too open is preferred for this crop.

Many growers plant chrysanthemums in old soil without sterilizing and expect good results. Many diseases and too much fertility are often found in old soil. Verticillium wilt (Seidewitz disease) is carried over in the old soil. If cultured cuttings are planted into old soil many varieties will become affected with wilt. The only reliable method is to sterilize with steam so that the soil is heated to 180 to 200 degrees F. for at least one hour. If the soil is high in nitrate nitrogen we suggest you apply two inches of alfalfa or red clover hay into the soil in place of manure before sterilizing. This coarse fiber will reduce the nitrates and also adds humus to the soil. After sterilizing leach the soil with large quantities of water to reduce the available nutrients.

Where steam sterilization is not available such as in cloth houses we suggest that you sterilize with formaldehyde liquid. Dilute one gallon of formaldehyde to 50 gallons of water and add this solution at the rate of ½ gallon per square foot of bed area. Allow the fumes to leave the soil before planting. Soil should be well tilled before applying liquid.

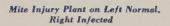
Still another chemical which has proven its worth is Larvacide. This material must be used when the greenhouses are empty to avoid injury to adjoining crops. This gas is applied in liquid form with a special applicator so that 2 to 3 c. c. are applied at 10 inch centers. The soil should be moist before applying. A good suitable covering should be placed over the treated soil to keep the gas in the soil for at least 48 hours, although a water seal applied 2 to 3 times every 24 hours will suffice. The soil temperature should be at least 60 degrees or higher. When used properly you can expect favorable control of insects, diseases and weed seeds.

Evidence shows that the soil reaction should be slightly acid pH 6.5, although in many instances a neutral medium does very well. If your soil tests slightly alkaline apply $\frac{1}{2}$ to one pound of agricultural sulfur per 100 square feet of area. However, if your soil is acid apply 3 to 5 pounds of agricultural ground limestone per 100 square feet of area.

Proper drainage and proper aeration of the soil are very vital to good growth. Many times improper drainage of the bench or bed is the reason for a poor crop. No wet spots should ever be present. Soil drainage may be improved by the addition of various materials. Any coarse organic material such as manure, alfalfa hay or clover hay applied at the rate not to exceed one fourth the volume will separate the soil particles sufficiently to increase pore space. Heavy applications of sand to a soil have not always proven of value to a chrysanthemum crop. Aeration may also be increased by proper cultivation of the soil. Frequent scratchings are recommended during the early growth of the crop.



Thrip Injury





Cultural Pointers

When using fresh soil, apply 3 to 5 lbs. of super phosphate per 100 square feet of area plus a liberal application of manure before planting. Phosphorus moves slowly within the soil mixture. It should always be added before the crop is benched so that it may be mixed thoroughly into the soil. A mulch of peat, rotted manure, alfalfa or red clover hay applied two to three weeks after planting is helpful. Six weeks after planting and every three weeks until color shows an application of ammonium sulfate at the rate of 1 lb. per 100 square feet of area or 2 lbs. of a complete fertilizer, such as Electra, is advisable. Remember that the plant is the best guide as to fertilizer requirements.

In the cooler weather and shorter days of September, omit the ammonium sulfate if the plants are growing freely and are of good color. The chrysanthemum plant assimilates more phosphorus and potassium during the fall when temperatures decline. Therefore, it is more desirable to apply a complete fertilizer shortly after the buds are visible.

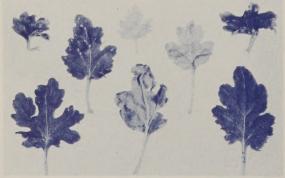
When using sterilized soil the best recommendations to follow would be to analyze your soil from time to time. We have found that when the following nutrient levels are kept, good crops are the result. Nitrate nitrogen should be between 10 to 25 parts per million; phosphorus from 2 to 5 parts per million and potassium 20 to 40 parts per million.

The foregoing pertains to plants that appear and behave normally. If plants are stunted, look yellow and sick, they are probably suffering from an extremely rich soil. Many greenhouse soils are excessively rich and chrysanthemums will not thrive in such a medium. If this is the case, the remedy is leaching with water. Lots and lots of it. More water than you ever applied to a bench at once before, two or three gallons per square foot. The water that runs through the soil carries with it the excessive plant food and allows your plants to recover from their indigestion. Did you ever notice fine healthy growth on a small part of a sick-looking bed of mums, and observe that it was under a broken pane of glass that allowed the rain water to come through and leach the soil below? Such a sight is a sure indication that the soil needed leaching. In most cases this condition is the result of the foolish and indiscriminate use of fertilizers. Use them when needed, but use them judiciously. Remember fertilizers are plant food in an extremely concentrated form.

PLANTING

Under shading information we have added the date of benching and you will note that we suggest planting in May and June depending on the date you wish to shade. The reason for earlier planting is to allow the plant enough time to grow so that the stem length is sufficient when blooms are ready to cut. For normal culture it is our experience that too late a planting, such as in late July or August, does not pay. We would like to see all planting done in the month of June.

Many florists are planting rooted cuttings directly into permanent locations. This not only reduces several handlings and production costs, but also produces a better quality bloom. We fully realize that it is often an impossibility for all to treat their chrysanthemums this way. However, we have found that young, soft plants are superior to hard woody plants. We do not recommend the plant-



Midge Showing Typical Galls on Foliage



Symphillid Enlarged 10x

CULTURAL

Gloeckner



Cultural Pointers

ing of unrooted cuttings directly into the permanent locations as you may encounter a heavy loss. However, we suggest you try a small number as a trial.

For good quality pompons we prefer to plant 7x8 inches or 8x8 inches pinched once, and thin the shoots to three per plant. Nothing is gained by planting at a closer distance. Light intensity should be high at the base of the plant for quality blooms and if planted too close we have lost the factor which promotes quality. Large flowered varieties are generally planted 8x8 inches or 8x9 inches, this also applies to disbud anemone and single varieties.

PINCHING

Pinching not only regulates the number of stems but also influences the petallage of varieties that tend to be single; regulates the neckiness eliminates the appearance of crown buds; and regulates the spray formation on pompons or singles.

For high quality pompons we suggest that you plant in June and give one pinch on the date listed in our list of varieties under "Last Pinch", and allow 3 to 4 breaks to mature. If you follow this culture your sprays will be much larger and every one will be saleable. If you prefer to have a number of smaller sprays, with fewer blooms open at one time, follow the double pinching procedure.

When pinching only remove the soft growth, never cut into the woody stems as this will not produce the type of breaks you desire. In all cases it is better to have at least eight inches of growth on the plants before pinching. It is our experience not to pinch until the plant has become well established in its permanent location.

Standards are usually grown with two blooms per plant. Here again we suggest that you follow the dates given after each variety. Singles and anemones are usually grown to 3 to 4 stems per plant.

The last pinching dates given after each variety will help you grow that variety to excellency. Remember that pinching is just one cultural factor and will only function when all other cultural points are carried out properly.

WATERING

When planting rooted cuttings directly into their permanent locations it is essential to water thoroughly to set the soil around the plant roots. We suggest double watering again when the soil gets on the dry side. By this time the plants are established and regular watering should be followed. Keep humidity in the house by wetting down bench and walks.

The knowledge of proper watering is essential to success. Chrysanthemums produce extremely heavy foliage and a great deal of water is required at the roots, and under ordinary conditions of bench culture overwatering would be difficult. When grown in beds more care should be exercised in watering.



Stunted Top Caused by Sting of Tarnish Plant Bug



Septoria Leaf Spot



CULTURAL







Crown bud surrounded by lateral buds

Terminal bud surrounded by flower buds

Terminal bud selected

DISBUDDING

Large flowered varieties produce side shoots in the axils of the leaves which should be removed very close to the base at regular weekly intervals.

The chrysanthemum usually produces two distinct types of flowering buds — Crown and Terminal. The first bud produced is called the crown bud and is distinguished by being surrounded by other lateral leaf buds. The second is the terminal bud and is surrounded by several flower buds. If the plant is planted especially early, a second crown bud might appear. In appearance this second crown bud is exactly the same as the first.

The procedure of "Taking Bud" depends very largely on the variety. Usually the safest rule to follow is not to select a bud of early or midseason varieties before August 25. In our list of large flowered varieties under "Select Bud" you will find the date on which to select the proper bud. If bud is selected too early a large percentage of the flowers will be crippled.

The final selection of bud should not be made when the cluster buds are too small as this will very likely cause injury to the stem near the bloom. Likewise it is not advisable to delay selecting the bud too long. Some growers like to leave an alternate bud until they are certain that nothing will happen to the one finally selected.

TEMPERATURE

Our leading Floriculturalists have shown that if chrysanthemums are grown in temperatures much below 50 degrees at the time of bud initiation the plants will remain vegetative and will not form buds.

Blindness in this crop is usually associated with those varieties which flower the latter part of November or later. Not all varieties initiate buds at the same date. The late flowering varieties may not set bud until October. The average night temperature at that date may well be below 50 degrees. It is recommended that you keep a night temperature of 55 degrees on the late varieties until fhe buds are visible, after that you are safe in reducing the temperature to 48 to 50 degrees. This raise in temperature is especially important if you are using additional light to retard blooming.

CULTURED

Cultured Stock

WHAT IS VERTICILLIUM WILT?

Verticillium wilt or more commonly called Seidewitz Disease, causes the margins of the leaves to turn yellow and eventually wilt or dry up. This begins at the base of the plant and works up the stem. It may affect one side of a stem or plant more than the other. There are no distinct spots on the leaves. Some varieties are more resistant than others.

HOW IS VERTICILLIUM WILT SPREAD?

Verticillium infection is either transmitted through diseased cuttings or is picked up by root infection from Verticillium-infected soil—it is not transmitted by air-borne or splashed spores.

WHAT IS THE CONTROL?

Plant only disease free, cultured cuttings in soil which has been steam sterilized.

WHAT IS CULTURING?

If bits of infected tissue of a cutting were partially imbedded in the gelatine-like agar medium which is used for growing fungi, the Verticillium grows out into the surrounding agar and can be accurately identified. If the tissue were not infected, no growth of Verticillium develops. Thus, the presence or absence of Verticillium in the basal tissues of any shoot can be rather quickly determined, the entire process requires only 10 days. It is this process which is referred to as "Culturing."

WHAT IS CULTURED-STOCK?

Each cutting is carefully cultured or indexed to determine the presence or absence of Verticillium organism. All Verticillium free cuttings are rooted in sterilized sand and then grown in sterilized soil. Stock plants are grown from this healthy stock in sterilized soil. This is "Cultured Stock."

IS THIS CULTURED-STOCK IMMUNE TO VERTICILLIUM WILT?

If planted in properly sterilized soil it should remain free or nearly free of Verticillium, but if planted into old, contaminated soil, cultured stock will become infected and may appear a little better than the usual run of stock.

ARE ALL VARIETIES GROWN FROM CULTURED STOCK?

Every cutting that you receive from us has been grown from cultured stock.



Verticillium Wilt



Rust on Chrysanthemum



PEST



Diseases and Their Control

DISEASE	SYMPTOMS	CONTROL
FOLIAR NEMATODE (See Picture on Page 17)	Leaves first turn black or chocolate brown and leathery, then shrivel up, become brittle. Begins at base of stem and may work up to the flowers.	Strip off all the leaves from the lower 6 to 8 inches of all plants as soon as possible. Spray with double strength nicofume plus Bordeaux Mixture.
MILDEW (See Picture on Page 17)	Whitish powdery growth on upper surface of leaves.	Spray at regular weekly intervals with a good wettable sulfur, I lb. per 100 gallons of water to which a good com- mercial spreader has been added. Dusting with a good dusting sulfur will give equally good results.
ROOT KNOT NEMATODE (Eelworm)	The nematodes or eelworms bore into the roots of the plants and cause knots or galls to develop on the root systems. As a result the plants are weak, yellowish and stunted in growth.	Soil sterilization, preferably with steam, is very effective in eliminating the root knot nematodes from the soil.
ROOT ROT	Entire plant will wilt and recover during the evening. Foliage turns yellow, entire plant will die in a very short time. A number of soil born organisms cause the loss of the roots.	Do not plant any cuttings that have been infected with damping off. Use sterilized soil. Remove all affected plants when noticed.
RUST (See Picture on Page 5)	Chocolate brown powdery pustules on the lower surface of the leaves.	Same as for Mildew.
SEPTORIA LEAF SPOT (Leaf Blight) (See Picture on Page 3)	Distinct circular spots on the leaves. These are greyish brown in color and become brittle in the center. Affected leaves may turn yellow and die. More prevalent out of doors. Some varieties are more suscepti- ble than others. Sea Gull is very susceptible.	Spray with 2-2-50 Bordeaux Mixture plus a good commercial spreader about 3 or 4 days after planting and continue at regular weekly intervals until about the middle of July. Fermate, I lb. per 100 gals. with Du-Pont Spreader-Sticker at I-3000, has given remarkable control, being equal, if not superior, to Bordeaux Mixture.
VERTICILLIUM WILT (Seidewitz Disease) (See Picture on Page 5)	Margins of leaves turn yellow and eventually wilt or dry up. This begins at base of plant and works up the stems. May affect one side of a stem or plant more than the other. No distinct spots. Varieties vary in resistance to this disease.	Plant only disease free cultured cut- tings in soil which has been steam sterilized.

We have omitted recommending insecticides containing pyrethrum and rotenone which are prohibited by governmental regulations on all flower crops.





	Trisects and Their	Control
INSECT	CONTROL	REMARKS
APHID (Plant Lice)	Nicofume Liquid, 1-400. Nicofume Fumigation.	Use pressure fumigators.
CLIMBING CUT WORM	Arsenate of lead spray or dust. Poison bran bait.	11/2 lbs. to 50 gal. water plus 1/2 lb. caseinate spreader. Poison Bait Formule: Wheat bran 5 lbs. Enough water to moisten mash. Paris Green 4 ozs. Molasses 1 pint. One finely chopped lemon.
LACE BUG	Tobacco dust.	General Sanitation.
LEAF ROLLER (Leaf Tier)	Arsenate of lead spray when plants are young. Tartar Emetic.	1½ lbs. to 50 gal. water plus ½ lb. caseinate spreader. 2 lbs. Tartar Emetic 4 lbs. Brown Sugar. 50 gal. water.
MEALY BUG	Calcium cyanide fumigation. Greenhouse Volck 1-50, and Nicofume 1-400. Loro 1-800, Grasselli Spreader 1-1200.	With caution. Be very careful, will burn when temperature is high. With caution.
MIDGE (See Picture on Page 2)	Calcium Cyanide fumigation. Nicofume fumigation. Loro 1-800, Grasselli Spreader 1-1200.	Must be done every evening for 21 days. With caution. Spray every 3 days for 3 weeks then every week.
MITE (See Picture on Page I)	Tobacco dust. Thiocide 1-200, Grasselli Spreader 1-800. Nicotine liquid, 1-400, plus spreader. Syringe with water.	Must be applied frequently.
RED SPIDER	Loro 1-800, Grasselli Spreader 1-1200. Selocide 1-100.	With caution.
SYMPHILLID (I) (See Picture on Page 2)	Grow on raised benches.	Steam sterilize all soil.
TARNISH PLANT BUG (2)	General Sanitation. Nicofume fumigation.	Control by contact only.
THRIP (See Picture on Page 1)	Tartar Emetic.	2 lb. Tartar emetic. 4 lbs. Brown sugar. 50 gal. of water. Mix tartar emetic in warm water the night before using.
	Nicofume liquid 1-400. Loro 1-800, plus spreader.	Will cause injury on some Varieties.

⁽¹⁾ Symphillids are small white creatures about 1/8 to 3/16 inches long which feed on the small white roots. Plants affected will not grow to any height.

⁽²⁾ Tarnish plant bugs in severe cases will cause blindness. Often times the flowers are one sided and the top of the spray will tip to one side. This insect is about 1/4 inch long and very difficult to locate. This insect is very injurious to mums planted out of doors without any aster cloth protection.

STEAM

Soil Sterilization with Steam

Today we are more than ever interested in economical operations. Sterilizing soil is definitely a money and labor saving method in preparing soils. There are other methods used to sterilize soil but we feel that steam is the most practical.

Soil sterilization is a protection against certain soil borne diseases, such as Verticillium wilt (Seidewitz disease) and root nematodes. Sterilizing by steam changes the physical properties by making the soil granular.

If the soil is high in nitrate, we suggest you apply two inches of alfalfa or red clover hay into the soil in place of manure, before sterilizing. Old greenhouse soils used for many years are usually high in nitrate nitrogen and are benefited by leaching, after the soil is steamed.

USEFUL HINTS

- 1—Apply manure or red clover hay before sterilizing. Till the soil thoroughly, so that the steam may be uniformly distributed.
- 2—Have the soil moderately moist, slightly drier than a good potting soil.
- 3—Use three inch tile, down spouting or pipe; two lines in a three and one-half foot bench. Ridge the soil to the center of the bench directly over the lines, covering with tarpaulin, canvas or builders' felt.
- 4—High pressure steam is not necessary. Figure that you can sterilize approximately one square yard of soil per boiler horse power.
- 5—Do not try to sterilize more than 50 feet of bench in one direction. The longer the distance, the longer time required to heat the desired temperature.
- **6**—Suitable thermometers should be available for determining temperatures at various depths.
- 7—Cover the sides of the benches so that the entire bench and contents are heated to 180°F.
- 8—No air should enter the pipe or tile with the steam as cold air causes condensation of the steam.
- 9—Remove the covering one hour after the steam has been cut. This allows the excess moisture to pass from the soil as vapor.
- 10—Steam sterilization granulates the soil particles, making for a more porous soil, allowing air and moisture to pass through freely.
- 11—Steam sterilization usually will increase the soluble salts, nitrate nitrogen and ammonia nitrogen over a period of several weeks, although this is not always the case.
- 12—Leach heavily immediately after sterilizing to reduce excess fertility
- 13—Be very careful so as not to contaminate sterilized soils by placing tools, flats, etc., on sterilized soil.
- 14—The cost of steam sterilization will average 1-½ cents per square foot of bench area, as compared with 5 cents per square foot when soil is changed.

We will at all times endeavor to serve you to the very best of our ability. If you have any questions, cultural problems, etc., from time to time, please feel free to call upon us. If we are able to help you we shall be more than repaid.





NOVELTIES

Novelty Chrysanthemums

SYLVANNA

A medium size orange bronze single with outstanding brilliance that does not fade or go dull even when flower is past maturity. Its blooming date is November 10. The flower is of good substance and has excellent keeping qualities. This is a variety of free growth habit, and is not at all sensitive to cultural environment. It produces satisfactorily on either raised benches or ground beds. Its response to black cloth is excellent. A quality single that is easy to grow.

Price for Rooted Cuttings: \$15.00 per 100; \$125.00 per 1000

ARGO

Late large pompon with good rounded form and excellent substance. Color beautiful bronzy orange, shading to rust. A very appealing shade, which does not fade if allowed to stand on the plant. Growth habit somewhat dwarf and rigid. Seems to make its growth late in the season and should therefore not be planted late. Stem and foliage are excellent. Production is likewise excellent if planted early. Blooms normally the first week in December. Argo is a quality pompon with a very appealing color which sells on sight.

Price for Rooted Cuttings: \$15.00 per 100; \$125.00 per 1000

MINUET

A beautifully formed, clear pink pompon of medium size that blooms for Thanksgiving. It is of extremely easy culture; the habit being vigorous and free, with dark glossy foliage, strong stems and upright sprays. This seedling bunches, keeps, and ships unusually well. It is a reliable producer and responds well under a wide diversity of cultures. It blooms at a period when a lively pink of top quality is in great demand.

Price for Rooted Cuttings: \$15.00 per 100; \$125.00 per 1000



Sylvanna



Argo



Minuet

OUTSTANDING





Novelty Chrysanthemums

NANCY CRAIN

Good button types are needed to supply the increasing demand for dainty and artistic work. Nancy Crain is a large white button which possesses perfect form and excellent substance. Has excellent growth habit producing clean and strong well flowered sprays with very high production. Matures about the 5th of November. This variety is easy to grow and should prove a favorite for early November.

Price for Rooted Cuttings: \$15.00 per 100; \$125.00 per 1000

NEVADA

Pure white anemone suitable for growing in natural sprays. Possesses excellent substance with a compactly formed cushion. Good growth habit and production. Blooms normally the end of November into December. A desirable and useful anemone producing flowers of high quality at a season when this type and color is much in demand.

Price for Rooted Cuttings: \$15.00 per 100; \$125.00 per 1000

LODESTAR

An intense lemon yellow single that blooms for Thanksgiving. This single, medium in size, has a very attractive star-like form. The substance and keeping quality improves any existing yellow single of similar flowering date. The color does not fade or lose brilliance with maturity. The small dark green foliage is carried on rigid stems of medium size. Lodestar should provide for Thanksgiving a much needed color in a very aristocratic form.

Price for Rooted Cuttings: \$15.00 per 100; \$125.00 per 1000

BRONZE GOLDSMITH

A beautifully blended orange and Brazil red sport from Goldsmith.

Price for Rooted Cuttings: \$15.00 per 100; \$125.00 per 1000



Nancy Crain



Nevada



Lodestar

OUTSTANDING



Novelty Chrysanthemums

Sold on Contract Basis

REVELATION

A clear white medium size pompon for early January. The flower is of good form and substance, larger and more fully double than Snow. The type of growth of this variety is truly a revelation for this late flowering season. The small hard stems are extremely rigid, with attractive dark green and healthy foliage. It is not at all sensitive to cultural environment, possessing a persistance of habit that should make it one of the most valuable pompons in existence.

> Price for Rooted Cuttings: \$5.00 per 100; \$45.00 per 1000

SUNNYSIDE

This seedling should mark a new epoch for pompons. The quality will thrill the most discriminating retail artist. The production and ease of culture should excite the critical eye of the grower. Sunnyside is a small golden yellow pompon of very hard substance, on sprays of unsurpassed rigidity. It matures November 20 to 25 to be had for Thanksgiving. Unhesitatingly we recommend Sunnyside as a distinct advance and a new era in the field of high quality, productive pompons.

> Price for Rooted Cuttings: \$5.00 per 100; \$45.00 per 1000



Revelation



Sunnyside

NOTE: All cuttings of these varieties will be sold with the following restrictions: Purchaser may grow them for flower production only; propagation rights are reserved and stock must be discarded after the flowering season. Contract forms will be supplied by the originator and must be signed and returned before shipments are made.



Novelty Chrysanthemums

NEW VARIETIES OF A FEW YEARS AGO. DON'T FAIL TO ADD THESE TO YOUR LIST.

INDIANAPOLIS YELLOW

This lemon yellow sport from Indianapolis Pink is another valuable addition to the very popular Indianapolis family. We think this is the best yellow mum for its specific flowering date.

GOLDEN SURPRISE

A bright sulphur yellow pompon shading to golden yellow. Blooms on well formed sprays with rigid pedicils. The variety is of extremely easy culture, and possesses excellent glossy green foliage which is disease resistant. Will give very good production of attractive blooms having good form and substance. Matures November 20th to 25th when yellow pompons are in great demand.

PIXIE

Pixie is a large, well rounded button pompon, 1½ inches in diameter. Its color is deep golden yellow. The normal blooming date is November 10th. Pixie has proven very valuable for early shading. Substance is outstandingly good, making the shipping and keeping qualities excellent. The plant is productive: the flowers are produced on stiff, wiry stems with good spray formations.

ANACONDA

A large flowered commercial incurved possessing excellent substance and color. Flowers do not shatter nor bruise easily from shipping or handling. The color is coppery red with golden bronze reverse, a shade very similar to the old variety Mrs. David Roy. Date of maturity November 10th to November 15th.

SPUN GOLD

This variety has been on trial for several years under extensive plantings. It ranks among the highest producing pompons we know of. Spun Gold is a large decorative pompon; deep lemon yellow in color: It blooms December 15th and later. Because of good substance it ships and keeps well. The stem is medium and strong. The flowers are well spaced on rigid sprays.

NAVAHO

Designed for a cloth house, medium, decorative, red pompon. It blooms normally November 5th. Color is deep crimson; reddish bronze under early shading. Responds well to shading and fills a great need for a cloth house variety in its color range. Growth is strong and uniform. The 21/2 inch flowers are well spaced on fine sprays.

Above Varieties Price for Rooted Cuttings:-\$8.00 per 100, \$75.00 per 1000

YELLOW SNOW

A bright Pernet yellow sport from Snow. The form and growth habit are identical with the original. Because of its season, December 30th, heavy production and excellent color this variety will prove to be one of the most valuable additions to the late pompons.

CAMEO

An ivory pompon of unusual size and substance that blooms the same time as Yuletide, Cordova and Silver Star. A strong persistant grower possessing a rigid an dwell spread spray. The growth habit is superior to any worth while variety in its color class and blooming season. Matures December 5th.

Above Varieties Price for Rooted Cuttings:-\$5.00 per 100, \$45.00 per 1000

YELLOW HAMMER

Bright golden yellow pompon blooming October 20. Blooms size of Pink Dot. Medium height and produces heavily, making good sprays. Recommended for shading.

PRISCILLA

Late white Pompon blooming November 28th. The flowers are 2 inches in diameter, ball-shaped and clear white. Heavy producer. A much needed late white Pompon.

Above Varieties Price for Rooted Cuttings:-\$12.00 per 100, \$100.00 per 1000





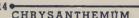


Large Flowering Varieties

YELLOW

Name and Description	Last Pinch		Height		Select Bud	м	atures		ice	per
Gold Lode. Light golden yellow. Reflexed	lune 20		Med.		Aug. 25		ct.	\$4.00		\$35.00
Celestra. Lemon yellow. Incurved	June 25		Med.		Ter. Bud		ct. 15	4.00		35.00
Mrs. H. E. Kidder. Deep lemon yellow. Incurved	June 30		Med.		Aug. 25		ct. 20	4.00		35.00
Yellow Ambassador. Pale lemon yellow. In-	00110 00					_	011 20	1.00		33.00
curved. Sport from Ambassador	July 5		Med.		Ter. Bud	0	ct. 23	4.00)	35.00
Blazing Gold. Deep golden yellow. Incurved	July 5		Med.		Ter. Bud		ct. 25	4.00		35.00
Sunglow. Golden yellow. Incurved	July 5		Med.		Aug. 25		ct. 25	4.00		35.00
Citronella. Light buff yellow. Incurved	July 5		Short		Aug. 31	_	ct. 28	4.00		35.00
Yellow Albatross. Light lemon yellow. Incurved.	,									
Sport from Albatross	July 10		Med.		Ter. Bud	0	ct. 28	15.00)	125.00
Saratoga. Bright golden yellow. Incurved	July 10		Med.		Ter. Bud	N	ov. I	4.00)	35.00
Golden Glory. Golden yellow. Semi-incurved.	July 10		Short		Aug. 25	N	ov. I	4.00)	35.00
Good News. Deep lemon yellow. Incurved.										
Sport from Detroit News	July 10		Med.		Aug. 30	N	ov. I	4.00)	35.00
Indianapolis Yellow. Lemon yellow. Incurved.										
Sport from Indianapolis Pink	July 15		Med.		Ter. Bud	N	ov. 8	8.00)	75.00
Cardonia. Deep golden yellow. Incurved	July 15		Med.		Sept. 5	N	ov. 10	4.00)	35.00
Penrod. Golden yellow. Incurved	July 15		Med.	c	Ter. Bud	N	ov. 10	6.00)	55.00
Whittier. Lemon yellow. Incurved	July 15		Med.		Sept. 15	N	ov. 13	4.00)	35.00
Yellow Monument. Pale lemon yellow. In-										
curved. Sport from Monument	July 20		Med.		Sept. 10	N	ov. 15	4.00)	35.00
Honey Dew. Lemon yellow. Incurved	July 20		Short		Ter. Bud	N	ov. 15	4.00)	35.00
Yellow Mefo. Lemon yellow. Incurved	July 25		Med.		Sept. 20		ov. 20	4.0		35.00
Friendly Call. Buff yellow. Incurved	July 25		Tall		Ter. Bud		ov. 20	4.0		35.00
Friendly Rival. Deep chrome yellow. Incurved	July 25		Med.		Sept. 10		ov. 20	4.0		35.00
Marie DePetris. Deep golden yellow. Incurved.	July 25		Short		Sept. 15		ov. 23	4.0		35.00
Sun Gold. Lemon yellow. Semi-incurved	July 25		Med.		Sept. 30	N	ov. 25	4.0)	35.00
Golden Pearson. (Leroy Zang). Light golden										
yellow. Incurved. Sport from Glady's Pear-										
son			Med.		Sept. 30	N	ov. 25	4.0)	35.00
Improved Yellow Chattanooga. Light lemon yel-								4.0		25.00
low. Incurved	July 25		Med.		Sept. 20		ov. 25	4.0		35.00
R. M. Calkins. Golden yellow. Semi-incurved.			Med.		Sept. 20		ov. 30	4.00		35.00
Golden Mrs. Ross. Golden yellow. Incurved			Tall		Ter. Bud		ec. 3	4.00		35.00 35.00
Golden Mistletoe. Pale golden yellow. Incurved.			Med.		Sept. 30		ec. 10	4.0		50.00
Meteore. Lemon yellow. Incurved	_		Med.		Ter. Bud	D	ec. 10	6.0	,	50.00
Improved Tobin's Late Yellow. Deep lemon yel-										
low. Semi-incurved. Sport from Tobin's Late	A 10	€'	Short		Sept. 30	D.	ec. 15	4.0)	35.00
Yellow	Aug. 10		311011		3epi. 30		50. 15	7.0		33.00
W	HIT	E								
		_	т. п		A 10		- E	4.0	n	35.00
Smith's Early White, Incurved	June 20		Tall		Aug. 10		ct. 5	7.0		33.00
Quaker Maid. White, tinged with pink. Re-	luna 25		Med.		Aug. 25		ct. 15	4.0	0	35.00
flexed			Med.		Aug. 30		ct. 18	4.0		35.00
Silver Sheen, Incurved			Med.		Ter. Bud		ct. 23	4.0		35.00
Ambassador. Cream white. Incurved			Med.		Ter. Bud		ct. 28	4.0		35.00
Albatross, Incurved	1 1 10		Med.		Ter. Bud		ov. I	4.0		35.00
Show White, incurved	,	ΔY		2W						

FOR SHADING INFORMATION AND DELAYED FLOWERING SEE PAGES 22-29.







Large Flowering Varieties

WHITE—Continued

Name and Description	Last	Mataka	Select Bud	Matures	Price	per
Name and Description Betsy Ross. Ivory White. Incurved. Indianapolis White. Incurved. Monument. Ivory White. Incurved Marketeer. Incurved Mefo. Ivory White. Incurved	Pinch July 10 July 15 July 20 July 20 July 25	Height Tall Med. Med. Med. Med. Med.	Aug. 25 Ter: Bud Sept. 10 Ter. Bud Sept. 20	Nov. 1 Nov. 8 Nov. 15 Nov. 18 Nov. 20	\$4.00 4.00 4.00 4.00 4.00	\$35.00 35.00 35.00 35.00 35.00
White Frick. White suffused with pink. Incurved. Sport from Helen Frick Chattanooga. Incurved December Glory. Ivory White. Incurved December White. Incurved White Mistletoe. Incurved Smith's Late White. Ivory white. Semi-incurved	July 25 July 25 July 30 Aug. 4 Aug. 4 Aug. 10	Short Med. Tall Med. Med. Short	Sept. 10 Sept. 20 Sept. 30 Ter. Bud Sept. 30 Sept. 30	Nov. 25 Nov. 25 Dec. 1 Dec. 5 Dec. 10 Dec. 15	4.00 4.00 4.00 12.00 4.00 4.00	35.00 35.00 35.00 100.00 35.00 35.00
B R	ONZ	E				
Indianola. Pale reddish bronze. Incurved Hilda Bergen. Dark reddish bronze. Incurved Cambria. Golden bronze. Incurved Glitters. Deep reddish orange. Reflexed Apricot Queen. Orange bronze. Incurved	June 25 July 5 July 5 July 5 July 10	Med. Med. Med. Med. Short	Aug. 25 Aug. 25 Ter. Bud Ter. Bud Sept. 5	Oct. 10 Oct. 25 Oct. 25 Oct. 28 Nov. 1	4.00 4.00 6.00 4.00 4.00	35.00 35.00 55.00 35.00 35.00
Detroit News. Reddish bronze with buff reverse. Incurved	July 10	Med.	Aug. 30	Nov. I	4.00	35.00
Sport from Indianapolis Pink. Gladys Pearson. Light buff bronze. Incurved Oak Leaf. Reddish bronze. Incurved. Bronze Mistletoe. Buff bronze suffused with pink.	July 15 July 25 July 25	Med. Med. Med.	Ter. Bud Sept. 30 Sept. 30	Nov. 8 Nov. 25 Nov. 25	4.00 4.00 4.00	35.00 35.00 35.00
Incurved	Aug. 4	Med.	Sept. 30	Dec. 10	4.00	35.00
	PINK					
Early October. Light lavender. Semi-incurved. Pink Chief. Lavender. Incurved. Major Ed. Bowes. Deep lavender. Incurved Rosabella. Rose pink. Incurved. J. W. Prince. (Improved Chieftain). Rose pink.	June 25 June 30 July 5	Med. Tall Med. Med.	Ter. Bud Ter. Bud Aug. 30 Ter. Bud	Oct. 10 Oct. 15 Oct. 20 Oct. 25	12.00 4.00 4.00 4.00	100.00 35.00 35.00 35.00
Incurved	July 10 🔅	Short	Aug. 30	Nov. 5	4.00	35.00
verse. Incurved. Orchid Queen. Orchid pink. Incurved. Thanksgiving Pink. Amaranth. Reflexed Helen Frick. Rose pink. Incurved. Edwin Seidewitz. Lavender. Incurved. Pink Mistletoe. Lavender. Incurved.	July 15 July 15 July 25	Med. Med. Short Short Tall Med.	Ter. Bud Ter. Bud Sept. 15 Sept. 10 Sept. 15 Sept. 30	Nov. 8 Nov. 12 Nov. 23 Nov. 25 Nov. 30 Dec. 10	4.00 4.00 4.00 4.00 4.00 4.00	35.00 35.00 35.00 35.00 35.00 35.00
	RED					
Anaconda. Deep coppery red with golder bronze reverse. Incurved	July 15	Med.	Sept. 15	Nov. 10	8.00	75.00
Mrs. David F. Roy. Crimson with deep buff reverse. Incurved	July 15	Short Med.	Sept. 15 Sept. 20	Nov. 10 Nov. 18	4.00 4.00	35.00 35.00

SEE PAGES 6 and 7 FOR DISEASE AND INSECT CONTROL



Pompon and Decorative Varieties

The term pompon is applied to those varieties which are of the true rounded type, and those very nearly approaching this type.

Decorative varieties are those which are a distinct departure from the rounded type. Their flowers are less compact, partly reflexed and display more of the color of the inner side of the petals.

Size of flower is indicated by S—small; Int.—intermediate: L—Large.

YELLOW

Name and Description	Last Pinch	Height	Size & Type	Mafures	Price 100	1000
Yellow Irene. Light lemon yellow. Sport from	June 20	Short	S. Pom.	Oct. 18	\$4.00	\$35.00
Irene	June 25	Short	Int. Pom.	Oct. 20	4.00	35.00
Rodell Improved. Light lemon yellow	June 25	Med.	Int. Pom.	Oct. 20	12.00	100.00
Yellow Hammer. Golden yellow		Med.	Int. Pom.	Oct. 23	4.00	35.00
Golden Spray. Deep lemon yellow	June 30					35.00
*Golden Herald. Deep golden yellow	June 30	Med.	L. Dec.	Oct. 25	4.00	35.00
Yellow Dot. Yellow with bronze center. Sport		14-1	L b D	O-1 25	4.00	35.00
from Pink Dot	June 30	Med.	Int. Pom.	Oct. 25	4.00	35.00
Yellow Arcadia. Pernet yellow	June 30	Med.	Int. Pom.	Oct. 28	4.00	35.00
Mary Lennon Hall. (Vera Victoria). Deep lemon	L.L. e	Tall	L. L. D	NI I	4.00	35.00
yellow	July 5	Tall	Int. Pom.	Nov. I	4.00	33.00
Yellow Sea Gull. Pale lemon yellow. Sport from	July 5	Tall	Int. Pom.	Nov. I	4.00	35.00
Sea Gull		Med.	L. Pom.	Nov. I	4.00	35.00
*Yellow Doty. Buff Yellow	July 5					35.00
Nuggets. Light lemon yellow	July 5	Short	S. Pom.	Nov. 5	4.00	35.00
Yellow Bushnell. Pernet yellow. Sport from Rev.	1.1.10	т. п	Int. Pom.	Nov. 8	4.00	35.00
Bushnell	July 10	Tall			4.00	35.00
Derigold. Deep golden yellow	July 10	Med.	Int. Pom.	Nov. 10		75.00
Pixie. Deep golden yellow	July 10	Med.	S. Pom.	Nov. 10	8.00	/5.00
Yellow New York. Deep lemon yellow. Sport	1.1.10	h / 1	C D	M 12	4.00	35.00
from New York	July 10	Med.	S. Pom.	Nov. 13	4.00	
Yellow Fellow. Deep lemon yellow	July 15	Med.	Int. Dec.	Nov. 15	4.00	35.00
Golden Surprise. Sulphur yellow, shading to				N . 20	9.00	75.00
golden yellow	July 20	Med.	Int. Pom.	Nov. 20	8.00	
Hasegawa Gold. Light golden yellow	July 20	Med.	Int. Pom.	Nov. 23	4.00	35.00
§Sunnyside. Golden yellow	July 25	Med.	Int. Pom.	Nov. 23	5.00	45.00
*Goldsmith. Golden yellow	July 20	Med.	Int. Dec.	Nov. 25	4.00	35.00
Christmas Gold. Deep golden yellow	July 25	Med.	S. Pom.	Nov. 28	4.00	35.00
Yellow Cordova. Lemon yellow. Sport from					4.00	25.00
Cordova	July 25	Med.	Int. Dec.	Nov. 30	4.00	35.00
Gold Coin. (Unalga). Deep lemon yellow	July 25	Med.	Int. Pom.	Dec. I	4.00	35.00
Golden Modena. Deep lemon yellow. Sport				5 -	4.00	35.00
from Modena	July 25	Med.	Int. Pom.	Dec. 5	4.00	
December Gold. Deep golden yellow	Aug. 4	Med.	Int. Dec.	Dec. 15	4.00	35.00
Christmas Cheer. Buff yellow	Aug. 4	Med.	Int. Pom.	Dec. 15	4.00	35.00
Spun Gold. Deep lemon yellow	Aug. 4	Med.	Int. Dec.	Dec. 15	8.00	75.00
Vibrant. Deep lemon yellow	Aug. 4	Med.	Int. Dec.	Dec. 20	4.00	35.00
Yellow Snow. Deep lemon yellow		Med.	Int. Pom.	Dec. 30	5.00	45.00
	-					

^{*} Responds to disbudding.

SEE PAGES I to 4 FOR CULTURAL POINTERS
FOR SINGLE AND ANEMONE VARIETIES SEE PAGES 18 and 19

[§] Propagation rights reserved — see novelty section page 11.





Pompon and Decorative Varieties

WHITE

Name and Description	Last , Pinch	Height	Size & Type	Matures	Pric 100	e per 1000
Uvalda. Cream white	June 20	Med.	Int. Pom.	Oct. 10	\$4.00	\$35.00
White Jewell. White tinged with light lavender	June 20	Short	S. Pom	Oct. 15	4.00	35.00
*Silver Ball	June 20	Med.	L. Pom.	Oct. 15	4.00	35.00
Irene	June 20	Short	S. Pom.	Oct. 18	4.00	35.00
Minong	June 25	Med.	S. Pom.	Oct. 20	4.00	35.00
Arcadia	June 30	Med.	Int. Pom.	Oct. 28	4.00	35.00
Sea Gull. Cream white	July 5	Tall	Int. Pom.	Nov. I	4.00	35.00
*White Doty. Ivory white	July 5	Tall	L. Pom.	Nov. I	4.00	35.00
Nancy Crain	July 5	Med.	S. Pom.	Nov. 5	15.00	125.00
Crystal Jewell	July 10	Tall	S. Pom.	Nov. 8	4.00	35.00
Rev. Horace Bushnell. Cream white	July 10	Tall	Int. Pom.	Nov. 8	4.00	35.00
Chicago Pearl. Ivory white	July 15	Med.	Int. Pom.	Nov. 15	4.00	35.00
Pearl	July 20	Tall	Int. Pom.	Nov. 20	4.00	35.00
Seafoam	July 25	Med.	Int. Pom.	Nov. 20	8.00	75.00
Priscilla	July 25	Tall	L. Pom.	Nov. 28	12.00	100.00
*White Yuletide	July 25	Short	Int. Pom.	Nov. 28	4.00	35.00
Cordova. Cream white	July 25	Med.	Int. Dec.	Nov. 30	4.00	35.00
Royal Queen	July 30	Med.	Int. Pom.	Dec. 5	4.00	35.00
Cameo. Ivory white	July 30	Med.	Int. Pom.	Dec. 5	5.00	45.00
Silver Star. Ivory white	July 30	Tall	Int. Pom.	Dec. 10	4.00	35.00
December Glory. Ivory white	Aug. 4	Med.	Int. Dec.	Dec. 15	4.00	35.00
Snow. Ivory white	Aug. 4	Med.	Int. Pom.	Dec. 30	4.00	35.00
§Revelation	Aug. 4	Med.	Int. Pom.	Jan. 5	5.00	45.00

BRONZE

Roman Bronze. Bronze suffused with pink. Sport Capt. Cook.	June 25	Tall	Int. Pom.	Oct. 20	4.00	35.00
Adelaide. Dark reddish bronze	June 25	Med.	S. Pom.	Oct. 23	4.00	35.00
*Jemima. Dark reddish bronze	June 25	Med.	Int. Pom.	Oct. 23	4.00	35.00
Fire Bird. Dark reddish bronze	June 30	Med.	Int. Dec.	Oct. 25	4.00	35.00
Bronze Bulkeley. Bronze suffused with pink. Sport from Mrs. Bulkeley.	July 10	Tall	Int. Pom.	Nov. 8	4.00	35.00
Cassandra. Orange bronze	July 10	Med.	Int. Pom.	Nov. 10	8.00	75.00
New York. Reddish bronze	July 10	Med.	S. Pom.	Nov. 13	4.00	35.00
*Bronze Masterpiece. Apricot bronze. Sport from Masterpiece.	July 15	Med.	Int. Pom.	Nov. 15	6.00	50.00

^{*} Responds to disbudding.

[§] Propagation rights reserved — see novelty section page 11.





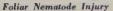


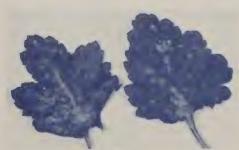
Pompon and Decorative Varieties

BRONZE—Continued

Name and Description Fez. Deep reddish bronze Princeton. Golden yellow suffused with orange. Gold Imperial. Golden yellow with deep yellow	Pinch July 15 July 15	Height Medium Medium	Size S. Pom. Int. Dec.	Matures Nov. 15 Nov. 15	Pric 100 \$4.00 4.00	• per 1000 \$35.00 35.00
orange center Catherine. Light reddish bronze. Legal Tender. Bronze and gold *Bronze Goldsmith. Mars orange. Sport from	July 15 July 20 July 20	Tall Medium Medium	Int. Dec. Int. Dec. Int. Dec.	Nov. 15 Nov. 20 Nov. 20	8.00 4.00 4.00	75.00 35.00 35.00
Goldsmith Apricon. Apricot yellow Dorothy Turner, Deep reddish bronze. Glow. Orange, reddish orange at center. Argo. Orange bronze Cavalcade, Mandarin red. Golden bronze re-	July 20 July 20 July 20 July 25 July 30	Medium Medium Medium Medium Short	Int. Dec. Int. Pom. Int. Pom. Int. Pom. Int. Pom.	Nov. 25 Nov. 25 Nov. 25 Nov. 30 Dec. 5	15.00 4.00 4.00 4.00 15.00	125.00 35.00 35.00 35.00 125.00
verse	July 30	Medium	Int. Pom.	Dec. 10	4.00	35.00
P	INK					
Jewell. Lavender	June 20	Short	S. Pom.	Oct. 15	4.00	35.00
Dark Pink Jewell. Deep lavender. Sport from Jewell Pink Pearl. Rose pink. Capt. Cook. Deep rose pink. Jessie, (Madeline). Light lavender. Pink Dot. White with pink center. *Lillian Doty. Light rose pink. Mrs. Morgan G. Bulkeley. Light rose pink suf-		Short Medium Tall Medium Medium Medium	S. Pom. S. Pom. Int. Pom. Int. Pom. Int. Pom. L. Pom.	Oct. 15 Oct. 20 Oct. 20 Oct. 25 Oct. 25 Nov. 1	4.00 4.00 4.00 4.00 4.00 4.00	35.00 35.00 35.00 35.00 35.00 35.00
fused with orchid lavender *Thyra. Lavender. *Masterpiece. Tourmaline pink. Minuet. Mauve to rose pink. Usona. Lavender. Prosperity. Deep lavender. Pink Treasure Island. Light lavender.	July 15 July 20	Tall Medium Medium Medium Medium Medium Medium	Int. Pom. L. Pom. Int. Pom. Int. Pom. Int. Pom. Int. Dec. Int. Dec.	Nov. 8 Nov. 10 Nov. 15 Nov. 25 Nov. 25 Dec. 10 Dec. 20	4.00 4.00 4.00 15.00 4.00 4.00 4.00	35.00 35.00 35.00 125.00 35.00 35.00 35.00
RED						
Natoma. Flame scarlet Robin Hood. Dark red Navaho. Dark red Red Princeton. Brazil red Mrs. Mary Hooker. Deep red Royal Crimson. Dark crimson	July 15 July 15 July 15	Short Medium Medium Medium Tall Medium	Int. Dec. S. Pom. Int. Dec. Int. Dec. L. Dec. L. Dec.	Oct. 25 Nov. 5 Nov. 5 Nov. 15 Nov. 15 Dec. 1	4.00 4.00 8.00 4.00 4.00 4.00	35.00 35.00 75.00 35.00 35.00 35.00







Mildew





Single - Daisy Type - Varieties

YELLOW

N	Last Pinch	Height	Size	Matures	Price	per 1000
Name and Description	June 30	Medium	Int.	Nov. I	\$4.00	\$35.00
Yellow Daisy. Deep lemon yellow	July 25	Medium	Int.	Nov. 25	15.00	125.00
*Golden Jane. Brilliant golden yellow. Sport	July 23	Medium	1111.	1404. 25	13.00	123.00
from Jane	July 25	Medium	Large	Nov. 30	8.00	75.00
	HITE			_		
**						
Nagona. Ivory white		Medium	Int.	Nov. 10	4.00	35.00
*White Mensa. Ivory white		: Medium	Int.	Nov. 10	4.00	35.00
Yukon	July 30	Tall	Int.	Dec. 10	4.00	35.00
BR	ONZ	E				
October Bronze. Light bronze	June 30	Medium	Int.	Oct. 28	4.00	35.00
Bronze Daisy. Light bronze	June 30	Medium	Int.	Nov. I	4.00	35.00
Bronze Buckingham. Light orange bronze	July 5	Short	Int.	Nov. 3	4.00	35.00
*Mason's Bronze. Burnt orange	July 10	Short	Large	Nov. 10	4.00	35.00
Sylvanna. Bittersweet orange	July 10	Medium	Int.	Nov. 10	15.00	125.00
*Apricot Valencia. Deep apricot buff. Sport						
from Dark Pink Valencia	,	Medium	Large	Nov. 30	8.00	75.00
*Jane. Light buff bronze. Sport from Valencia		Medium	Large	Nov. 30	4.00	35.00
Viking. Deep reddish bronze shading to orange	July 25	Medium	Int.	Dec. I	4.00	35.00
F	PINK					
October Pink. Light lavender	June 30	Medium	Int.	Oct. 28	4.00	35.00
W. H. Buckingham. Rose pink	July 5	Short	Int.	Nov. 3	4.00	35.00
Hasegawa Pink. Lavender	July 20	Medium	Int.	Nov. 25	4.00	35.00
*Valencia. Orchid pink	July 25	Medium	Large	Nov. 30	4.00	35.00
*Dark Pink Valencia. Deep orchid pink. Sport						
from Valencia	July 25	Medium	Large	Nov. 30	4.00	35.00
Carillon. Deep orchid pink	Aug. 4	Medium	Int.	Dec. 15	8.00	75.00
Rosalind. Rose pink	Aug. 4	Tall	Int.	Dec. 20	5.00	45.00
	RED					
Red Daisy. Deep red	July 5	Medium	Int.	Nov. 5	4.00	35.00
*Europa. Cardinal red	July 10	Short	Large	Nov. 10	6.00	55.00
*Clara Holford. Deep red	July 10	Medium	Large	Nov. 10	4.00	35.00
*Red Melba. Light red	July 10	Short	Large	Nov. 10	4.00	35.00
*Red Valencia. Brazil red. Sport from Valencia.	July 25	Medium	Large	Nov. 30	8.00	75.00
*Carnelia. Bittersweet red	July 25	Short	Large	Nov. 30	4.00	35.00
Sarong. Crimson scarlet	Aug. 4	Medium	Int. Sing.	Dec. 15	4.00	35.00
* Responds to disbudding.						

FOR DISBUDDED SPRAY INFORMATION SEE PAGE 32



Gloeckner



Anemone Flowered Varieties

YELLOW

Name and Description	Last Pinch	Height	Size	Matures	Pric 100	e per 1000
*Helios. Deep golden yellow	July 10	Medium	Large	Nov. 10	\$4.00	\$35.00
Sunray. Light lemon yellow	,	Medium	Int.	Nov. 15	4.00	35.00
*Susanne Miller. Buff yellow. Sport from Norma	,	Tall	Large	Nov. 18	4.00	35.00
*Yellow Rolinda. Light buff yellow. Sport from	00., 20		Ed. 90	1101. 10		55.05
Rolinda	July 20	Medium	Int.	Nov. 23	4.00	35.00
Yellow Garza Supreme. Pale lemon yellow	Aug. 4	Short	Int.	Dec. 15	4.00	35.00
	VHIT					
*Graceland. White with yellow center	July 5	Medium	Int.	Oct. 28	4.00	35.00
Blanche	July 5	Medium	Int.	Nov. I	4.00	35.00
*White Anemone	,	Tall	Int.	Nov. 5	4.00	35.00
*Shasta		Medium	Int.	Nov. 8	4.00	35.00
*Little America	July 10	Medium	Int.	Nov. 10	4.00	35.00
*White Freida. White with yellow cushion *White Norma. White suffused with pink. Sport	July 15	Medium	Large	Nov. 15	4.00	35.00
from Norma	July 20	Tall	Large	Nov. 18	4.00	35.00
*Nevada. White with chartreuse green cushion .	July 20	Medium	Int.	Nov. 20	15.00	125.00
*Long Island Beauty. White with yellow cushion	July 20	Medium	Large	Nov. 20	4.00	35.00
*White Supreme. White suffused with pink	July 30	Medium	Large	Dec. 10	4.00	35.00
Garza Supreme	Aug. 4	Short	Int.	Dec. 15	4.00	35.00
В	RON	Z E				
*Bronze Freida. Salmon buff with yellow center.						
Sport from Freida	July 15	Medium	Large	Nov. 15	4.00	35.00
Yolanda. Light orange bronze	July 20	Medium	Int.	Nov. 25	4.00	35.00
Chrome Emerald. Golden orange with gold	,					
cushion	July 25	Short	Int.	Dec. I	4.00	35.00
	PINI					
0 1:10 1: 0 1:1 31 11 11			L. A	N1 15	4.00	35.00
Orchid Beauty. Orchid with golden cushion		Medium	Int.	Nov. 15	4.00	35.00
*Freida. Light lavender with yellow cushion	July 15	Medium Tall	Large Int.	Nov. 15 Nov. 18	4.00	35.00
*Norma. Orchid pink petals with salmon cushion *Dark Pink Norma. Deep lavender. Sport from	July 20	ıaıı	Int.	1100, 10	4.00	33.00
Norma	July 20	Tall	Int.	Nov. 18	4.00	35.00
*Beautiful Lady. Deep lavender rays with cream						
white cushion	July 20	Short	Large	Nov. 25	4.00	35.00
*Enchantress. Deep pink with light pink cushion.	July 30	Medium	Large	Dec. 5	8.00	75.00
*Dark Pink Supreme. Lavender. Sport from Pink						
Supreme	July 30	Medium	Large	Dec. 10	4.00	35.00
	RED					
*The Titan. Scarlet crimson with bronzy red						
cushion		Medium	Large	Nov. 10	4.00	35.00
*Red Rolinda. Deep reddish bronze. Sport from			, , ,			
Rolinda		Medium	Int.	Nov. 23	4.00	35.00
* Responds to Disbudding.	•					
FOR SHADING INFO	RMATIO	N SEE PAGE	:S 22 to	28		

CHRYSANTHEMUM





CUTTINGS

Pot Plant Varieties

The varieties listed below include those of all types which have been found most suitable for pot culture. Types are indicated by Sing.—Single; Anem.—Anemone; Dec.—Decorative; Pom.—Pompon; Inc.—Incurved. Size of flower is indicated by S—Small; Int.—Intermediate; L—Large; L. F. Large flowering commercial.

YELLOW

Name and Description	Last Pinch	Size &	Spray or Disbud	Matures	Price	per 1000
Gold Lode. Golden yellow	Aug. 24	L.F. Dec.	Disbud	Oct. I	\$4.00	\$35.00
Rodell Improved. Yellow. Sport from Rodell	Aug. 24	Int. Pom.	Spray	Oct. 20	4.00	35.00
Mrs. H. E. Kidder. Bright yellow	Aug. 24	L.F. Inc.	Disbud	Oct. 20	4.00	35.00
Golden Spray. Deep lemon yellow	Sept. 3	Int. Pom.	Spray	Oct. 23	4.00	35.00
Blazing Gold. Deep golden yellow	Aug. 24	L.F. Inc.	Disbud	Oct. 25	4.00	35.00
Sunglow. Yellow	Aug. 24	L.F. Inc.	Disbud	Oct. 25	4.00	35.00
Golden Glory. Golden yellow	Aug. 24	L.F. Inc.	Disbud	Nov. I	4.00	35.00
Saratoga. Bright golden yellow	Aug. 24	L.F. Inc.	Disbud	Nov. I	4.00	35.00
Nuggets. Best early yellow	Aug. 24	S. Pom.	Spray	Nov. 5	4.00	35.00
Indianapolis Yellow. Lemon yellow. Sport from			-17			
Indianapolis Pink	Aug. 29	L.F. Inc.	Disbud	Nov. 8	8.00	75.00
Cardonia. Deep golden yellow	Aug. 29	L.F. Inc.	Disbud	Nov. 10	4.00	35.00
Yellow Beauty. Golden yellow	Aug. 29	L. Pom.	Disbud	Nov. 10	4.00	35.00
Sunray. Yellow	Sept. 3	Int. Anem.	Spray		4.00	35.00
Honey Dew. Lemon yellow	Sept. 3	L.F. Inc.	Disbud	Nov. 15	4.00	35.00
			Disbud a	r		
Yellow Fellow. Deep lemon yellow	Sept. 3	Int. Dec.	Spray	Nov. 15	4.00	35.00
Friendly Rival. Large golden yellow	Sept. 3	L.F. Inc.	Disbud	Nov. 20	4.00	35.00
Bonnaffon DeLuxe. Golden yellow	Sept. 3	L.F. Inc.	Disbud	Nov. 20	4.00	35.00
			Disbud o	r		
Yellow Rolinda. Buff yellow		Int. Anem.	Spray	Nov. 23	4.00	35.00
Sun Gold, Lemon yellow	Sept. 8	L.F. Dec.	Disbud	Nov. 25	4.00	35.00
W	HITE					
· ·	ппг					
White Jewell. White suffused with pink	Aug. 24	S. Pom.	Spray	Oct. 15	4.00	35.00
Irene. White	Aug. 24	S. Pom.	Spray	Oct. 18	4.00	35.00
Minong. White	Aug. 24	S. Pom.	Spray	Oct. 20	4.00	35.00
Christina. White, sport from Rose Chochard	Aug. 24	L.F. Inc.	Disbud	Oct. 20	4.00	35.00
			Disbud o	or .		
Graceland. White with yellow center	Aug. 24	Int. Anem.		Oct. 28	4.00	35.00
Indianapolis White. White	Aug. 29	L.F. Inc.	Disbud	Nov. 8	4.00	35.00
Richard Mandel. Pure white		L. Pom.	Disbud	Nov. 10	4.00	35.00
Little America. Pure White	Aug. 29	Int. Anem.		Nov. 10	4.00	35.00
Marketeer. White	Sept. 3	L.F. Inc.	Disbud	Nov. 18	4.00	35.00
Long Island Beauty. White with yellow cushion		L. Anem.	Disbud	Nov. 20	4.00	35.00
White Frick. White suffused with pink. Sport						
from Helen Frick	Sept. 3	L.F. Inc.	Disbud	Nov. 25	4.00	35.00

CHRYSANTHEMUM

Gloeckner CUTTINGS Pot Plant Varieties

BRONZE and RED

Name and Description	Last Pinch	Size & Type	Spray or Disbud	Blooming Date	Pric 100	e per
Indianola. Light bronze	Aug. 24	L.F. Inc.	Disbud	Oct. 10	\$4.00	\$35.00
Hilda Bergen. Bronze		L.F. Inc.	Disbud	Oct. 25	4.00	35.00
Cambria. Golden bronze	Aug. 24	L.F. Inc.	Disbud	Oct. 25	6.00	55.00
Glitters. Bright bronze	Aug. 29	L.F. Dec.	Disbud	Oct. 28	4.00	35.00
Apricot Queen. Orange Bronze	Aug. 29	L.F. Inc.	Disbud	Nov. I	4.00	35.00
Indianapolis Bronze. Buff bronze. Sport from Indianapolis Pink.	Aug. 29	L.F. Inc.	Disbud	Nov. 8	4.00	35.00
Clara Holford. Deep red	Aug. 29	L. Sing.	Disbud	Nov. 10	4.00	35.00
Red Melba. Red	Aug. 29	L. Sing.	Disbud	Nov. 10	4.00	35.00
Bronze Masterpiece. Apricot bronze	Aug. 29	Int. Pom.	Disbud	Nov. 15	6.00	50.00
Gypsy. Pale reddish bronze	Aug. 29	S. Anem.	Spray	Nov. 15	4.00	35.00
Garnet King. Deep, bright red	Sept. 3	L.F. Dec.	Disbud	Nov. 18	4.00	35.00
	'		Disbud o	-		
Legal Tender. Bronze and Gold	Sept. 3	Int. Dec.	Spray	Nov. 20	4.00	35.00
			Disbud o			25.00
Red Rolinda. Deep reddish bronze	Sept. 8	Int. Anem.	Spray	Nov. 23	4.00	35.00
F	INK					
Early October. Light lavender	Aug. 24	L.F. Inc.	Disbud	Oct. 10	12.00	100.00
Jewell. Bright rose pink	Aug. 24	S. Pom.	Spray	Oct. 15	4.00	35.00
Dark Pink Jewell. Deep lavender. Sport from						
Jewell	Aug. 24	S. Pom.	Spray	Oct. 15	4.00	35.00
Rosabella. Rose Pink	Aug. 24	L.F. Inc.	Disbud	Oct. 25	4.00	35.00
Indianapolis Pink. Deep lavender with pale re-	A 20	1.5.1	Disbud	Nov. 8	4.00	35.00
Verse	Aug. 29	L.F. Inc. L. Pom.	Disbud	Nov. 10	4.00	35.00
Thyra. Dark pink	Aug. 29	L. Pom.	Disbud	Nov. 10	4.00	35.00
Queen of Pinks. (Pink Mandel.) Lavender		Int. Pom.	Disbud	Nov. 15	4.00	35.00
Masterpiece. Tourmaline pink	Aug. 29	L. F. Inc.	Disbud		4.00	35.00
Helen Frick, Rose Pink	Sept. 3	L. F. Inc.	DISDUG	Nov. 25	7.00	33.00
Beautiful Lady. Deep lavender rays with cream white cushion	Sept. 3	L. Anem.	Disbud	Nov. 25	4.00	35.00



Pot Plant Var. Golden Glory



New 1944 Shipping Carton

SHADING





The Use of Black Cloth Shading to Advance the Flowering Season

The varieties in the following list lend themselves satisfactorily to black cloth shading. The dates opposite the varieties are those found most satisfactory when the given blooming date is desired.

Use a good durable Black Cloth which has no less than 64 x 104 threads to the inch. Best results are obtained when the light intensity under the cloth when applied is 2 ft, candles or less. More light intensity than this will result in delayed flowering and unevenness in bloom.

The cloth should be applied at 5:00 P.M. and removed at 7 A.M. Shading is continued on pompons until the latest buds show color and most of the flowers are well developed. On the large flowering varieties shading can be discontinued after all flowering buds have attained the diameter of approximately half an inch.

Make sure that covering is complete on all benches shaded, as any leaks in light will cause uneven spots in the bench at flowering time.

It is not recommended that the large flowering varieties be grown outdoors under shade, unless proper protection is provided. Fall rains and wind storms play havoc with large flowers when not protected. Therefore, inside growing is suggested unless proper overhead protection is provided.

Best results are obtained when varieties of approximately the same blooming date are used for any one particular shading. When a spread in blooming dates is desired, repeated shading of a few varieties at weekly or ten-day intervals has proven more satisfactory than grouping a large number of varieties into any one shading. The shading dates given are those which have been found to be best for the respective varieties. We recommend benching six weeks prior to shading.

When only one stem is desired following a pinch, soft pinching should be practiced. Removal of the mere tip is best for examples when standards are pinched to avoid crown buds. Thus the final pinch on standards should be a soft pinch.

When several breaks are desired as in pinching of pompons, the pinch should be low enough to remove all of the soft growth. The lowest point at which the stem breaks off readily is about right for this type of pinch.

For strong stems a single pinch is best. With more pinches plants become successively weaker.

As an added suggestion, we would recommend the removal of black cloth after night fall to allow for a better circulation of air. This would prevent the accumulation of dampness and the unfavorable results that usually occur therefrom. This of course will cause considerable extra work as the cloth must be replaced before morning. We feel however, that as this will improve the growth and the foliage it will be well worth the effort. Perfection is never obtained without added effort.







Large Flowering Varieties

	_				
VARIETY	COLOR	Date of Benching	Date of Last Pinch	SHADE	BLOOM
BLAZING GOLD SILVER SHEEN HILDA BERGEN PINK CHIEF	Yellow White Bronze Pink	May 3 May 3 May 3 May 10	May 31 May 31 May 31 June 7	June 28 June 28 June 28 July 5	August-23-30
BLAZING GOLD SILVER SHEEN HILDA BERGEN PINK CHIEF	Yellow White Bronze Pink	May 10 May 10 May 10 May 17	June 7 June 7 June 7 June 14	July 5 July 5 July 5 July 12	Aug. 30—Sept. 6
GOOD NEWS ALBATROSS DETROIT NEWS ROSABELLA BLAZING GOLD SILVER SHEEN HILDA BERGEN PINK CHIEF	Yellow White Bronze Pink Yellow White Bronze Pink	May 10 May 10 May 10 May 10 May 17 May 17 May 17 May 24	June 7 June 7 June 7 June 7 June 14 June 14 June 14 June 21	July 5 July 5 July 5 July 5 July 12 July 12 July 12 July 19	September 6-13
GOOD NEWS ALBATROSS DETROIT NEWS ROSABELLA	Yellow White Bronze Pink	May 17 May 17 May 17 May 17	June 14 June 14 June 14 June 14	July 12 July 12 July 12 July 12 July 12	September 13-20
GOOD NEWS ALBATROSS DETROIT NEWS ROSABELLA	Yellow White Bronze Pink	May 24 May 24 May 24 May 24	June 21 June 21 June 21 June 21	July 19 July 19 July 19 July 19	September 21-27
INDIANAPOLIS WHITE. INDIANAPOLIS BRONZE INDIANAPOLIS PINK INDIANAPOLIS YELLOW GOOD NEWS ALBATROSS DETROIT NEWS ROSABELLA	White Bronze Pink Yellow Yellow White Bronze Pink	May 24 May 24 May 24 May 24 May 31 May 31 May 31 May 31	June 21 June 21 June 21 June 21 June 28 June 28 June 28 June 28	July 19 July 19 July 19 July 19 July 29 July 26 July 26 July 26 July 26	Sept. 27—Oct. 4
HONEY DEW YELLOW MEFO MEFO INDIANAPOLIS WHITE INDIANAPOLIS BRONZE INDIANAPOLIS YELLOW GOOD NEWS ALBATROSS DETROIT NEWS J. W. PRINCE	Yellow Yellow White White Bronze Pink Yellow Yellow White Bronze Pink	May 31 May 31 May 31 May 31 May 31 May 31 June 7 June 7 June 7 June 7	June 28 June 28 June 28 June 28 June 28 June 28 June 28 July 5 July 5 July 5 July 5	July 26 July 26 July 26 July 26 July 26 July 26 July 26 July 26 August 2 August 2 August 2 August 2	October 4-11
MRS. DAVID ROY HONEY DEW YELLOW MEFO MEFO INDIANAPOLIS WHITE INDIANAPOLIS BRONZE INDIANAPOLIS PINK INDIANAPOLIS YELLOW ORCHID QUEEN	Red Yellow Yellow White Bronze Pink Yellow Pink	May 31 June 7	June 28 July 5	July 26 August 2	October 11-18



Large Flowering Varieties

	Large S	tower	ing car	ielles	
VARIETY GOLDEN PEARSON MRS. DAVID ROY HONEY DEW YELLOW MEFO INDIANAPOLIS YELLOV INDIANAPOLIS WHITE MEFO	COLOR Yellow Red Yellow Yellow Yellow White White	Date of Benching June 7 June 7 June 14 June 14 June 14 June 14	Date of Last Pinch July 5 July 5 July 12 July 12 July 12 July 12 July 12	SHADE August 2 August 2 August 9 August 9 August 9 August 9 August 9	BLOOM October 17-25
INDIANAPOLIS BRONZ INDIANAPOLIS PINK ORCHID QUEEN	Pink Pink	June 14 June 14 June 14	July 12 July 12 July 12	August 9 August 9 August 9	rone Jypes
		,	,		ione Sypes
YELLOW IRENE		May 3 May 3	May 24 May 24	June 21 June 21	August 9-16
MINONG WHITE JEWELL JEWELL YELLOW IRENE IRENE	White Pink Yellow	May 3 May 3 May 3 May 10 May 10	May 24 May 24 May 24 May 31 May 31	June 21 June 21 June 28 June 28	August 16-23
YELLOW DOT MARY L, HALL YELLOW DAISY NUGGETS MINONG WHITE JEWELL PINK PEARL	Yellow Yellow Yellow Yellow White White Pink	May 3 May 3 May 3 May 10 May 10 May 10 May 10 May 10	May 24 May 24 May 24 May 24 May 31 May 31 May 31 May 31	June 21 June 21 June 21 June 21 June 28 June 28 June 28 June 28	August 23-30
YELLOW DOT MARY L, HALL YELLOW DAISY NUGGETS JESSIE MINONG WHITE JEWELL JEWELL PINK PEARL	Yellow Yellow Yellow Yellow Pink White White	May 10 May 10 May 10 May 10 May 10 May 17 May 17 May 17 May 17	May 31 May 31 May 31 May 31 May 31 June 7 June 7 June 7 June 7	June 28 June 28 June 28 June 28 June 28 July 5 July 5 July 5 July 5 July 5	Aug. 30—Sept. 6
YELLOW DOT MARY L. HALL YELLOW DAISY NUGGETS SEA GULL *LITTLE AMERICA BLANCHE JESSIE ADELAIDE FIREBIRD	Yellow Yellow Yellow Yellow White White White Pink Bronze	May 17 May 17	June 7	July 5	September 6-13
PIXIE YELLOW BUSHNELL YELLOW FELLOW YELLOW NEW YORK *HELIOS * Good Disbudded.	Yellow Yellow Yellow	May 17 May 17 May 17 May 17 May 17	June 7 June 7 June 7 June 7 June 7	July 5 July 5 July 5 July 5 July 5 July 5	September 13-20

* Good Disbudded.

SHADING





Pompons, Decorative, Single and Anemone Types

VARIETY	COLOR	Date of Benching	Date of Last Pinch	SHADE	BLOOM
*LITTLE AMERICA *WHITE FREIDA NAGONA CRYSTAL JEWELL REV. H. BUSHNELL BLANCHE FEZ NEW YORK ROBIN HOOD NAVAHO *FREIDA MRS. M. G. BULKELEY YELLOW DOT YELLOW ARCADIA MARY L. HALL YELLOW DAISY NUGGETS *GOLDEN HERALD SEA GULL ROMAN BRONZE ADELAIDE FIREBIRD OCTOBER BRONZE *CLARA HOLFORD JESSIE PINK DOT CAPTAIN COOK OCTOBER PINK	White White White White White White White Bronze Bronze Red Pink Pink Yellow	May 17 May 24	June 7 June 14	July 5 July 12	September 13-20
PIXIE YELLOW BUSHNELL YELLOW FELLOW YELLOW NEW YORK *HELIOS *LITTLE AMERICA *WHITE FREIDA NAGONA CRYSTAL JEWELL REV. H. BUSHNELL BLANCHE FEZ NEW YORK ROBIN HOOD NAVAHO *FREIDA MRS. M. G. BULKELEY YELLOW DOT YELLOW DOT YELLOW DAISY NUGGETS *GOLDEN HERALD	Yellow Yellow Yellow Yellow Yellow White White White White Bronze Bronze Red Red Pink Pink Yellow Yellow Yellow Yellow Yellow White	May 24 May 31	June 14 June 21 June 21 June 21 June 21 June 21 June 21	July 12 July 19	September 20-27

^{*} Good Disbudded.

SHADING





Pompons, Decorative, Single and Anemone Types

VARIETY	COLOR	Date of Benching	Date of Last Pinch	SHADE	BLOOM
SEA GULL ROMAN BRONZE ADELAIDE FIREBIRD OCTOBER BRONZE *CLARA HOLFORD JESSIE PINK DOT CAPTAIN COOK OCTOBER PINK	White Bronze Bronze Bronze Red Pink Pink Pink	May 31 May 31 May 31 May 31 May 31 May 31 May 31 May 31 May 31 May 31	June 21	July 19	September 20-27
PIXIE YELLOW BUSHNELL YELLOW FELLOW YELLOW NEW YORK *HELIOS *LITTLE AMERICA *WHITE FREIDA NAGONA CRYSTAL JEWELL REV. H. BUSHNELL *BLANCHE FEZ NEW YORK *BRONZE FREIDA PRINCETON ROBIN HOOD NAVAHO *FREIDA MRS. M. G. BULKELEY	Yellow Yellow Yellow Yellow White White White White White Bronze Bronze Bronze Bronze Red Red Pink Pink	May 31	June 21	July 19	Sept. 27—Oct. 4
YELLOW DOT YELLOW ARCADIA MARY L. HALL YELLOW DAISY NUGGETS *GOLDEN HERALD SEA GULL ROMAN BRONZE ADELAIDE FIREBIRD OCTOBER BRONZE *CLARA HOLFORD RED DAISY JESSIE PINK DOT CAPTAIN COOK OCTOBER PINK	Yellow Yellow Yellow Yellow Yellow Yellow Bronze Bronze Bronze Red Pink Pink Pink	June 7	June 28	July 26	Sept. 27—Oct. 4
YELLOW BUSHNELL YELLOW FELLOW YELLOW NEW YORK	Yellow Yellow Yellow	June 7 June 7 June 7	June 28 June 28 June 28	July 26 July 26 July 26	October 4-11

^{*} Good Disbudded.

Gloeckner INFORMATIO



		Date of	Date of		
VARIETY	COLOR	Benching	Last Pinch	SHADE	BLOOM
*HELIOS	Yellow	June 7	June 28	July 26	
*LITTLE AMERICA	White	June 7	June 28	July 26	
*WHITE FREIDA	White	June 7	June 28	July 26	
CRYSTAL JEWELL	White White	June 7 June 7	June 28	July 26	
REV. H. BUSHNELL	White	June 7 June 7	June 28 June 28	July 26 July 26	
BLANCHE	White	June 7	June 28	July 26	
FEZ	Bronze	June 7	June 28	July 26	
NEW YORK	Bronze	June 7	June 28	July 26	
*BRONZE FREIDA	Bronze	June 7	June 28	July 26	
PRINCETON	Bronze	June 7	June 28	July 26	
ROBIN HOOD	Red	June 7	June 28	July 26	
NAVAHO	Red	June 7	June 28	July 26	
RED PRINCETON	Red	June 7	June 28	July 26	
*FREIDA	Pink	June 7	June 28	July 26	O-t-b 4.11
MRS. M. G. BULKELEY MASTERPIECE	Pink	June 7	June 28	July 26	October 4-11
YELLOW DOT	Pink Yellow	June 7 June 14	June 28 July 5	July 26	
YELLOW ARCADIA	Yellow	June 14	July 5	August 2 August 2	
MARY L. HALL	Yellow	June 14	July 5	August 2	
YELLOW DAISY	Yellow	June 14	July 5	August 2	
NUGGETS	Yellow	June 14	July 5	August 2	
*GOLDEN HERALD	Yellow	June 14	July 5	August 2	
SEA GULL	White	June 14	July 5	August 2	
ROMAN BRONZE	Bronze	June 14	July 5	August 2	
ADELAIDE	Bronze	June 14	July 5	August 2	
FIREBIRD OCTOBER BRONZE	Bronze	June 14	July 5	August 2	
*CLARA HOLFORD	Bronze Red	June 14 June 14	July 5 July 5	August 2 August 2	
RED DAISY	Red	June 14	July 5	August 2	
JESSIE	Pink	June 14	July 5	August 2	
PINK DOT	Pink	June 14	July 5	August 2	
CAPTAIN COOK	Pink	June 14	July 5	August 2	
OCTOBER PINK	Pink	June 14	July 5	August 2	
DIVIE	V II	1 14	LLE		
PIXIE	Yellow	June 14	July 5	August 2	
YELLOW BUSHNELL	Yellow	June 14	July 5.	August 2	
YELLOW FELLOW YELLOW NEW YORK	Yellow Yellow	June 14 June 14	July 5 July 5	August 2 August 2	
*HELIOS	Yellow	June 14	July 5	August 2	
*LITTLE AMERICA	White	June 14	July 5	August 2	
*WHITE FREIDA	White	June 14	July 5	August 2	
NAGONA	White	June 14	July 5	August 2	
CRYSTAL JEWELL	White	June 14	July 5	August 2	0 . 1
REV. H. BUSHNELL	White	June 14	July 5	August 2	October 11-18
BLANCHE	White	June 14	July 5	August 2	
FEZ	Bronze	June 14	July 5	August 2	
NEW YORK ************************************	Bronze	June 14	July 5	August 2	
PRINCETON	Bronze Bronze	June 14 June 14	July 5 July 5	August 2 August 2	
ROBIN HOOD	Red	June 14	July 5	August 2	
NAVAHO	Red	June 14	July 5	August 2	
RED PRINCETON	Red	June 14	July 5	August 2	
*FREIDA	Pink	June 14	July 5	August 2	
**	1 1111		, -	,	

^{*} Good Disbudded.

CHADING





Pompons, Decorative, Single and Anemone Types

VARIETY	COLOR	Date of Benching	Date of Last Pinch	SHADE	ВЬООМ
MRS. M. G. BULKELEY YELLOW DOT YELLOW ARCADIA MARY L. HALL YELLOW DAISY NUGGETS *GOLDEN HERALD SEA GULL ROMAN BRONZE FIREBIRD OCTOBER BRONZE *CLARA HOLFORD RED DAISY JESSIE PINK DOT CAPTAIN COOK	Pink Yellow Yellow Yellow Yellow White Bronze Bronze Red Pink Pink	June 14 June 21 June 28	July 5 July 12	August 2 August 9	October 11-18
PIXIE YELLOW BUSHNELL YELLOW FELLOW YELLOW NEW YORK *HELIOS *LITTLE AMERICA *WHITE FREIDA CRYSTAL JEWELL REV. H. BUSHNELL BLANCHE FEZ NEW YORK *BRONZE FREIDA PRINCETON ROBIN HOOD NAVAHO RED PRINCETON *FREIDA MRS. M. G. BULKELEY MASTERPIECE YELLOW DOT YELLOW ARCADIA MARY L. HALL YELLOW DAISY NUGGETS *GOLDEN HERALD SEA GULL ROMAN BRONZE *CLARA HOLFORD RED DAISY JESSIE PINK DOT CAPTAIN COOK OCTOBER PINK * Good Dishudded	Yellow Yellow Yellow Yellow Yellow White White White White Bronze Bronze Bronze Red Red Pink Pink Yellow Yellow Yellow Yellow Yellow Yellow Yellow Yellow White Bronze Red Pink Pink Pink	June 28 June 5 July 5	July 12 July 17	August 9 August 16	October 18-25

^{*} Good Disbudded.







To Delay Flowering by Use of Artificial Light

It has usually been considered that lighting pompons greatly reduces the number of flowers per spray. Experiments conducted at the United States Department of Agriculture shows that this occurs if light is applied at or soon after the time of bud formation. When light treatments were started at least 2 weeks before bud formation and applied in the form of nightly interruptions, no supplementary light being used while the buds developed, blooming could be delayed without seriously reducing flower count.

Experience will prove the best guide in applying methods to extend the flowering season. The choice of varieties, season of bloom and light treatment, must be made by the individual grower. If the blooming season is to be extended for only several weeks, then the light exposure period per night can be short, not to exceed 30 minutes of light from 40- to 60- watt lamps. If the blooming season is to be extended further, a longer period of light, but not more than I hour nightly, should be used. To be most effective, this light should be applied at or near the middle of the night.

USEFUL HINTS

- 1—Select vigorous growing, midseason to late-flowering varieties for delayed flowering.
- 2-Planting date may be several weeks later than when no lights are used.
- 3—Light with 40- to 60- watt lamps using suitable reflectors hung at four-foot intervals over the bench. Too low a light intensity will not retard bud development.
- 4—Start lights at least 2 weeks before buds are normally visible for the variety, usually not later than August 10th. Starting after this date may cause malformed flowers and long necks.
- 5-Use lights EVERY NIGHT at or near midnight, for not more than one hour.
- 6—Pinch pompons and disbuds the last time 30 days before the light treatment is discontinued. This will prevent varieties from getting too leggy.
- 7—Night temperatures should be 55 degrees with day temperatures from 10 to 15 degrees higher. Cooler night temperatures will induce blindness.
- 8—Discontinue lights according to the blooming time desired. For varieties normally blooming before November 15, allow 9 weeks after the lights are stopped until blooming; for varieties blooming after November 15 allow 10 to 11 weeks; and for those blooming in December, 11 to 12 weeks.
- 9—Be careful that the light from the bench treated does not light a bench nearby that is not treated. This will cause part of the bench not under treatment to be delayed in flowering and consequently upset growing plans for bench not under treatment.
- 10—Standards, Disbuds, Pot-Plants, and Pompons respond alike to this delayed flowering treatment.

DOT DIANT





Chrysanthemum Pot Plant Culture

Well grown short pot plants of Chrysanthemums have been finding a ready market in various sections of the country. We feel that many growers have been neglecting this valuable Fall potted plant. In many cases, poor attempts have been made in growing this plant and we offer the following suggestions for your consideration:

VARIETIES—The varieties best suited to pot culture are those which lateral freely and have a medium to low growing habit. A variety whose laterals tend to spread is superior to one with a more upright growth. Good examples are: Bonnafon De Luxe and Queen of Pinks.

PLANTING—Cuttings may be planted into $2^{1}/2^{11}$ pots in May and later shifted into the larger pot for finishing. If this is done care must be used so as not to get the plants hardened too much before shifting. A more efficient and easier way is to set the large pots on the bench, fill them with potting soil and plant the cuttings directly into the finishing pots.

Three cuttings should be planted in a six inch pot, while four may be required for a large pot.

WATERING AND HUMIDITY—After planting, water thoroughly to set the soil around the plant roots. Repeat this type of watering when the soil gets on the dry side. Organic matter in the soil will facilitate watering and will tend to avoid extreme fluctuations in moisture supply. Keep humidity in house by wetting down bench and walks. Do not sprinkle foliage of plants.

PINCHING—Three pinches are sufficient for a good short compact pot plant. The first pinch should be approximately 15 days after planting. The second pinch about 30 days after planting and the third and last pinch as listed on the chart. Some of the varieties listed grow taller than others, however by observing the last pinching date all the varieties listed should finish reasonably uniform in height. A hard pinch is suggested when the last pinch is delayed until after shading. For example: Yellow Beauty when shaded July 1st and pinched July 11th.

FERTILIZING—The best program is to have regular soil tests and feed as need is indicated by these tests. In absence of these facilities, and starting with a relatively fertile potting soil, several light feedings should be made with a complete fertilizer such as Electra. This can safely be used at the rate of I Teaspoonful per 6" pot. This should be applied when soil is moist and never on a dry soil.

The foliage should retain a bright green lustre throughout the life of the plant, and the lower leaves should never be allowed to lose their color and turn to a light green due to low fertility. A strong well grown pot plant is a well fed plant.

DISEASES AND INSECTS—Pot Plants should be sprayed regularly with one of the rotenone insecticides for control of red spider. Pyrethum sprays or tartar emetic will control thrip and leaf tier. If plants are to be grown outdoors before final potting the foliage should be kept covered with a spray such as Bordeaux Mixture or Fermate to prevent leaf spot. If this is not done considerable foliage loss may result during wet cool weather.

SHADING—Same procedure as for cut flowers. Black cloth should be new or in best of condition for very early shadings to avoid delayed and uneven blooming. When possible take cloth off at night, replacing before daylight.

DISBUDDING

WITH POMPONS—Remove center bud except on the button types. This gives better spacing to the remaining flowers. Also the center bud generally matures earlier than the surrounding buds, giving the appearance of irregular blooming and premature aging. Remove this bud as early as convenient.

WITH DISBUDS—Disbudding must be done early, late disbudding results in small flowers and weak and elongated stems directly below the flowers.

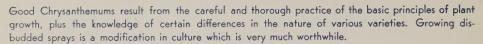
HEIGHT—By following our directions pompons grown in 51/2" or 6" pots will be 11" to 13" high. Disbuds will grow 14" to 17" above the top of the pot.



Continuous Bloom Schedule

YELLOW		BRONZE	
Plant Last Pinch Shade	Approx. Date of Bloom	Plant Last Pinch Shade	Approx. Date of Bloom
GOLDEN SPRAY		HILDA BERGEN	
May 15 July 16 July 1	September 1	May 15 July 1 July 1	August 25
June I July 30 July 15	September 20	June I July 15 July 15	September 10
June 15 August 16 August		June 15 August I August I	September 25
July I September 3 No Shad	le October 23	July I August 24 No Shade	October 25
May 15 July 6 July 1	September 10	CAMBRIA May 15 July 6 July 1	September 5
June I July 20 July 15	September 25	June I July 20 July 15	September 20
June 15 August 6 August		June 15 August 6 August 1	October 5
July I August 24 No Shad	le October 25	July I August 29 No Shade	October 25
GOLDEN GLORY		GLITTERS	
May 15 July 6 July 1	September 5	May 15 July 11 July 1	September I
June 1 July 20 July 15	September 25	June I July 25 July 15	September 15
June 15 August 6 August July 1 August 24 No Shao		June 15 August 11 August 1 July 1 August 29 No Shade	October 1 October 28
CARDONIA	io i tovellibel i	APRICOT QUEEN	OCTOBOL 20
May 15 July 4 July 1	September 15	May 15 July 11 July 1	September I
June I July 18 July 15	October 8	June I July 25 July 15	September 15
June 15 August 4 August		June 15 August II August I	October I
July I August 29 No Shad	de November 10	July I August 29 No Shade	November I
YELLOW BEAUTY	0-1-11	GYPSY	Ct120
May 15 July 11 July 1 June 1 July 25 July 15	October 15	May 15 July 1 July 1 June 1 July 15 July 15 July 15	September 20 October 5
June 15 August 11 August		June 15 August I August I	October 20
July I August 29 No Shao		July I August 29 No Shade	November 15
SUNRAY		RED ROLINDA	
May 15 July 1 July 1	September 5	May 15 July 1 July 1	September 20
June I July 15 Juy 15	September 20	June I July 15 July 15	October 10
June 15 August I August July I September 3 No Sha		June 15 August 10 August 1 July 1 September 8 No Shade	October 25 November 23
July I September 3 No Shad	de November 15		140Vellibel 25
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June 15 August 4 August		June 15 August 11 August 1 July 1 August 29 No Shade	October 5
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RICHARD MANDEL	6 . 1 .0	QUEEN OF PINKS	C 10
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May 15 July 6 July 1	September 10	May 15 July 1 July 1	September 28
June I July 20 July 15	September 25	June 1 July 15 July 15	October 10
June 15 August 6 August		June 15 August 1 August 1	October 30
July I August 29 No Sha	de November 10	July I September 3 No Shade	November 25

Disbudded Sprays



The procedure in growing disbudded sprays, is to wait until the crown bud forms, then remove all vegetative shoots but three. Later when terminal buds appear dis-bud each shoot similar to the normal disbudding of standards. When the blooms mature there are three flowers on each spray. In singles and anemones the size of the blooms will be a trifle smaller in size than when they are grown as one flower per stem.

Bunch disbudded spray pompons similar to the way used in bunching the regular grown pompons.

Varieties which may be grown as Disbudded Sprays are as follows:-

YELLOW

CULTURAL

GOLDEN HERALD YELLOW DOTY YELLOW BEAUTY HELIOS SUSANNE MILLER YELLOW ROLINDA GOLDSMITH **GOLDEN JANE BONNAFFON DELUXE**

BRONZE

MASON'S BRONZE APRICOT VALENCIA **BRONZE MASTERPIECE BRONZE GOLDSMITH BRONZE FREIDA** JANE

WHITE

SILVER BALL GRACELAND WHITE DOTY RICHARD MANDEL WHITE ANEMONE SHASTA LITTLE AMERICA WHITE FREIDA WHITE NORMA LONG ISLAND BEAUTY **NEVADA** WHITE SUPREME

RED

EUROPA CLARA HOLFORD THE TITAN RED MELBA RED ROLINDA CARNELIA

PINK

LILLIAN DOTY QUEEN OF PINKS THYRA **ENCHANTRESS** MASTERPIECE FREIDA NORMA BEAUTIFUL LADY VALENCIA DARK PINK VALENCIA DARK PINK SUPREME



Goldsmith after disbudding



Goldsmith natural spray



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